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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,819	07/23/2003	Juichi Fujimoto	239892US	8104
22850	7590	06/28/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ZALUKAEVA, TATYANA	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 06/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

*Handwritten signature*

**Office Action Summary**

Application No.

10/624,819

Applicant(s)

FUJIMOTO ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 16, 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-4, 16 and 17 are pending in the Application.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 1-4, 16, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is indefinite if undue experimentation is involved to determine boundaries of protection. This rationale is applicable to polymer "obtainable" by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer produced. One who made or used a polymer made by a process other than the process cited in the claim would have to produce a polymer using all possible parameters within the scope of the claim, and then extensively analyze each product to determine if this polymer was obtainable by a process within the scope of the claimed process. Consult **Ex parte Tanksley**, 26 USPQ 2d 1389.

4. Claims 4 and 17 are additionally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recited relative amounts of components (a1) and (a2) are absolutely indefinite, because component (a2) is twice

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recited as having different ranges of concentration. Therefore, the search for the ranges was made only to the extent provided by the instant claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
9. Claims 1-4, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen et al (U.S. 4,414,278).  
Cohen discloses crosslinked polymeric particles having average diameter of (0.7-20micrometers) (700-20,000 nm), wherein 90% of particles are way below 20micrometers (abstract). The particles are obtained by copolymerization of trimethylolpropane triacrylate (compound a2 of the instant claim 1 and the only compound exemplified in the instant specification) and other copolymerizable monomer, such as, for example, methyl methacrylate (this is instantly claimed compound a1), as seen from Table Example 3 in col.7, or copolymerization of trimethylolpropane triacrylate with triethylene glycol diacrylate (also reads on compound a1), as seen in Table, Example 4 in col.9. Examples of particle sizes are specific data points within the

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claimed range. Therefore, all the components, their ranges and particle sizes are clearly anticipated by Cohen.

The limitations of the instant claims, such as "Tg of 100C or higher" and "amount of remaining double bonds of 0.01 mmol/g or more" (emphasis added-T.Z) do not set forth any upper limit for these values, and since the particles are the same as claimed and are made by the same process as claimed these properties are inherent for the particles of Cohen. The same rationale applied to the property of "cubical expansion... of 300% or less".

The above rejections were made in the sense of In re Fitzgerald (205 USPQ 594). (CAFC) or In re Spada, 911 F 2d 705, 709 15 USPQ 1655, 1658 (Fed. Cir. 1990), which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art.

10. Claims 1-4, 16, 17 are rejected under 35 U.S.C. 102(a)/102(e)/103 (a) as being anticipated by or in the alternative as obvious over Miyamoto et al (U.S. 6,146,749).

Miyamoto discloses crosslinked resin particles having an average particle diameter in the range from 0.03 to 10 micrometers (30-10,000 nm), the crosslinked resin particles being prepared by the polymerization of 1-100 wt % of cross-linking monomers and 0-99 wt % of non-cross-linking monomers. (abstract) The glass transition temperature is 50C or higher (col.3, lines 45-47) , the relative proportions are presented in col. 3, lines 50-56). The crosslinking and non-crosslinking monomers are exemplified in col.6, lines 7-37 and are within the scope of the instantly very broadly claimed compounds.

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Therefore, a person skilled in the art would have clearly envisaged the instantly claimed components copolymerizable to obtain crosslinked particles. In the event that one of the ordinary skill in the art would not immediately envisage Applicants' instantly claimed composition, then the composition is rendered obvious from the disclosure found in the prior art. The prior art contains **each of Applicants' instantly claimed ingredients** and clearly suggests to one of ordinary skill in the art that they be used in combination as claimed. Such a suggestion renders obvious applicants' instantly claimed composition, and as such, the claims are not patentable.

11. Claims 1-4, 16, 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 06316685.

Disclosed is a resin composition having excellent lubricity, formability, rustproofing property, electrical insulation, solvent resistance, etc., and composed of specific polymer fine particles having a crosslinked structure and specific particle diameter. The resin composition is composed of fine polymer particles having a crosslinked structure and particle diameter of 0.2-2 $\mu$ m and produced by polymerizing (A) a vinyl monomer composed mainly of styrene and methyl methacrylate and (B) a crosslinking monomer copolymerizable with the component A, e.g. divinylbenzene, ethylene glycol di(meth)acrylate and trimethylolpropane trimethacrylate. The amount of the component B is preferably 0.4-8mol% based on 100mol% of A+B. Therefore, a person skilled in the art would have clearly envisaged the instantly claimed components copolymerizable to obtain crosslinked particles. In the event that one of the ordinary skill in the art would not immediately envisage Applicants' instantly claimed composition, then the

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composition is rendered obvious from the disclosure found in the prior art. The prior art contains **each of Applicants' instantly claimed ingredients** and clearly suggests to one of ordinary skill in the art that they be used in combination as claimed. Such a suggestion renders obvious applicants' instantly claimed composition, and as such, the claims are not patentable.

12. Other prior art references made of record disclose crosslinked particles made of comonomers generically recited in the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tatyana Zalukaeva  
Primary Examiner  
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